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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,313	12/02/2003	Ivan V. Mendenhall	AAI-14304	3115
45483	7590	12/12/2007	EXAMINER	
AUTOLIV ASP, INC			FELTON, AILEEN BAKER	
Attn: Sally J. Brown ESQ			ART UNIT	PAPER NUMBER
3350 Airport Rd			1793	
OGDEN, UT 84405				
MAIL DATE		DELIVERY MODE		
12/12/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/726,313	MENDENHALL ET AL.	
Examiner	<b>Art Unit</b>		
Aileen B. Felton	1793		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 26 September 2007.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 18-29 and 31 is/are pending in the application.  
4a) Of the above claim(s) 19,25 and 27-29 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 18,20-24,26 and 31 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO/SB/08)  
    Paper No(s)/Mail Date \_\_\_\_\_  
4)  Interview Summary (PTO-413)  
    Paper No(s)/Mail Date. \_\_\_\_\_  
5)  Notice of Informal Patent Application  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Allowable Subject Matter***

1. The indicated allowability of claims 18-24 and 26-31 is withdrawn in view of the newly discovered reference(s) to Hughes, Donaghue, Taylor, and Mackenzie.

Rejections based on the newly cited reference(s) follow.

### ***Election/Restrictions***

2. Claims 19, 25 and 27-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species of organic fuel as the additional fuel and the desensitizing agent which was not elected, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/14/2006 and 10/14/2005.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 18 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al(6,340,175) in view of Donaghue et al(4,151,022).

Hughes et al discloses using a porous igniter product within an air bag apparatus. A foaming or blowing agent is introduced into the composition to decrease the density of the composition. Example 1 discloses 24.54 % polymeric binder, 1.86 %

foaming agent, 15.5 % metal fuel (aluminum), and 53.92 % oxidizer. Col. 5, lines 30-45 indicate that it is known to use Mg/Al alloys as the metal fuel and potassium nitrate as the oxidizer. Further, col. 4, lines 10-47, reference the use of chemical foaming (blowing) agents to form the porous igniter.

Donaghue et al teaches numerous methods for creating porous explosive compositions. One method combines polystyrene particles with the explosive component and heats in the presence of a blowing agent which decomposes such as azodicarbonimide.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use chemical blowing agents that decompose with heat since Donaghue teaches that it is known to create porous explosives using such agents and since Hughes discloses that it is possible to use chemical blowing agents to form the porous igniters. Further note that most of the last full paragraph of claim 1 consists of statements of intended use and product by process limitations which are not given patentable weight. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation (i.e. "capable of", "effective to", etc.). These clauses are essentially method limitations or statements of intended or desired use and do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647. If the product in the product-by-process claim is the same as or

obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

***Claim Rejections - 35 USC § 103***

5. Claims 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al(6,340,175) in view of Donaghue et al(4,151,022) as applied to claims 18 and 20-23 above, and further in view of Taylor (6,096,147).

Regarding claim 24, Taylor et al discloses the use of hydroxypropyl cellulose with an ignition enhanced air bag composition (col. 3, lines 27-35).

Regarding claim 13, Taylor et al discloses an igniter composition that is coated onto an air bag composition (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder as taught by Taylor with the composition of Hughes since Taylor suggests that it can be used with an ignition enhanced air bag composition and since Hughes discloses using various polymeric binders with an ignition composition for use in an air bag device. It also would have been obvious to use the ignition composition of Hughes to coat air bag compositions since Taylor suggests that it is known to use ignition compositions to coat air bag compositions to reduce ignition delay and since the ignition composition of Hughes is used with an air bag device.

6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al(6,340,175) in view of Donaghue et al(4,151,022) as applied to claims 18 and 20-23 above, and further in view of Nairn et al (3,293,108).

Nairn teaches the use of aminoguanidine bicarbonate as a blowing agent for a polymeric foam material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the blowing agent taught by Nairn as the blowing agent in Hughes and Donaghue's composition since Nairn suggests that it is a known blowing agent for making porous polymeric foam materials and since Hughes and Donaghue use chemical blowing agents to make polymeric materials porous.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 571.272.6875. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571.272.1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aileen Felton/  
Primary Examiner  
Art Unit 1793